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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,889	10/01/2004	Kotaro Takagi	259178US6XPCT	9774
22850	7590	10/10/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			CHEN, JUNPENG	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/509,889

Applicant(s)

TAKAGI, KOTARO

Examiner

Junpeng Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-10 and 12 is/are allowed.
- 6) ☒ Claim(s) 5 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

1. This action is in response to applicant's amendment filed on 09/18/2006. **This action is made FINAL.**

### *Response to Arguments*

2. Applicant's arguments filed 09/18/2006 have been fully considered but they are not persuasive.

Regarding Applicant's arguments, each of claims 5 and 11 claims contradictory limitations. Specifically, the limitation of the emitter is of the differential pairs of transistors are *directly coupled* to the own current source and a collector of one of the low gain pair of transistors in the low noise amplifying circuit, and the limitation of the emitters of the differential pairs of transistor are *selectively connected* to the own current source during high gain or a collector of one of the pair of low gain transistor in the low noise amplifying circuit during low gain. Therefore, the two limitations above render claims 5 and 11 indefinite.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 5 and 11** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 5 and 11** (See lines 7-9, 11-14, 18-20 and 22-25 of claim 5, and lines 7-9, 11-14, 18-20 and 22-25 of claim 11) recite that the emitters of the differential pairs of transistors are **directly coupled** to [the] own current source and a collector of one of the low gain pair of transistors in [the] low noise amplifying circuit (*With the recitation "directly coupled", the examiner interprets the above limitation as the emitters of the different pairs of transistors are connected to the own current source and a collector of one of the low gain pair of transistors **WITHOUT** any other element(s) being presented in the connections. Specifically, there is no other element in between the emitters of the differential pair of transistors and [the] own current source, and there is no other element in between the emitters of the differential pair of transistor and a collector of one of the low gain pair of transistors in [the] low noise amplifying circuit).*

However, **Claims 5 and 11** (See lines 9-11, 14-16, 20-22 and 25-27 of claim 5, and lines 9-11, 14-16, 20-22 and 25-27 of claim 11) further recite a contradictory limitation to the above limitation. Claims 5 and 11 further recite that the emitters of the differential pairs of transistors are **selectively connected** to [the] own current source during high gain or a collector of one of the pair of low gain transistors in [the] low noise amplifying circuit during low gain (*With the recitation "selectively connected", the examiner interprets this limitation as the emitters of the differential pair of transistors are connected to the own current source during high gain and a collector of one of the pair*

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*of low gain transistors in [the] low noise amplifying circuit during low gain **WITH** other element(s), such as a selecting or switching element, being presented in the connections. Specifically, a selecting or a switching element inherently existing between the emitters of the differential pairs of transistors and [the] own current source during high gain to performed the "select" function as claimed, and a selecting or a switching element inherently existing between the emitters of the differential pairs of transistors and a collector of one of the pair of low gain transistors in [the] low noise amplifying circuit during low gain to perform the "select" function as claimed).*

While the first limitation above is claiming that there is no other element(s) in the connections, the second limitation above is contradictively claiming that there is other element(s) in the connections. Due to the two contradictive limitations above, each of claims 5 and 11 fails particularly point out and distinctly claim the subject matter which applicant regards as the invention and thus renders each of claims 5 and 11 indefinite.

#### ***Allowable Subject Matter***

4. **Claims 1-4, 6-10 and 12** are allowed for the reason in the previous Office Action.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Junpeng Chen whose telephone number is (571) 270-1112. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Junpeng Chen  
J.C./jc

September 28, 2006

EDAN ORGAD  
PATENT EXAMINER/TELECOMM.

*Edan Orgad 9/29/06*